

TDMS No. 96015 - 05

Test Type: CHRONIC

Route: DOSED WATER

Species/Strain: RATS/F 344

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a)
WITH AVERAGE SEVERITY GRADES[b]**

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

CAS Number: 3252-43-5

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

F1_R2

Date Report Requested: 06/09/2006

Time Report Requested: 12:50:37

First Dose M/F: 09/05/01 / 09/05/01

Lab: SRI

C Number: C96015

Lock Date: 04/30/2004

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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CAS Number: 3252-43-5

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Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	12	11	22	10
Natural Death	7	6	3	5
Survivors				
Terminal Sacrifice	31	33	25	35
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(48)	(50)	(50)	(50)
Epithelium, Hyperkeratosis	6 [1.8]	8 [1.6]	34 [1.8]	46 [1.9]
Intestine Large, Cecum	(48)	(49)	(50)	(47)
Inflammation, Chronic	1 [3.0]			
Ulcer			1 [3.0]	
Intestine Large, Colon	(48)	(50)	(49)	(47)
Intestine Large, Rectum	(49)	(50)	(50)	(49)
Intestine Small, Duodenum	(49)	(49)	(50)	(48)
Congestion			1 [4.0]	
Intestine Small, Ileum	(46)	(48)	(50)	(47)
Intestine Small, Jejunum	(47)	(46)	(49)	(47)
Liver	(50)	(50)	(50)	(50)
Angiectasis, Focal	1 [2.0]	5 [1.8]	3 [2.0]	3 [1.7]
Congestion		4 [2.3]	2 [2.0]	6 [2.5]
Degeneration, Cystic, Focal	5 [1.8]	5 [1.8]	8 [2.3]	4 [1.5]
Fibrosis, Focal	1 [2.0]			
Hematopoietic Cell Proliferation	1 [3.0]	3 [1.3]		
Hemorrhage			1 [4.0]	
Hepatodiaphragmatic Nodule	5	6	3	2
Inflammation, Chronic	28 [1.8]	31 [1.8]	29 [1.8]	34 [1.9]
Necrosis	3 [2.0]			
Bile Duct, Hyperplasia	45 [2.7]	47 [2.7]	47 [2.7]	46 [2.5]
Hepatocyte, Basophilic Focus	26	32	23	25
Hepatocyte, Clear Cell Focus	24	22	19	22
Hepatocyte, Cytologic Alterations, Focal	1 [1.0]	5 [2.2]	2 [2.5]	6 [2.3]
Hepatocyte, Cytoplasmic Alteration,	2 [2.5]			

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

Time Report Requested: 12:50:37

Route: DOSED WATER

CAS Number: 3252-43-5

First Dose M/F: 09/05/01 / 09/05/01

Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Focal				
Hepatocyte, Eosinophilic Focus	7	8	4	7
Hepatocyte, Mixed Cell Focus	26	24	19	29
Hepatocyte, Necrosis		8 [2.0]	7 [1.9]	4 [1.5]
Hepatocyte, Necrosis, Focal	1 [1.0]			
Hepatocyte, Vacuolization Cytoplasmic	37 [2.1]	37 [2.1]	36 [2.4]	29 [2.3]
Serosa, Fibrosis		1 [2.0]		
Mesentery	(14)	(18)	(18)	(15)
Accessory Spleen	1 [2.0]	1		
Fibrosis			1 [2.0]	
Pigmentation			1 [2.0]	
Fat, Necrosis, Focal	9 [3.0]	10 [2.9]	12 [2.9]	7 [3.0]
Oral Mucosa	(0)	(0)	(1)	(3)
Pancreas	(49)	(50)	(50)	(50)
Hyperplasia, Lymphoid	1 [2.0]			1 [2.0]
Inflammation		2 [2.5]		
Lipomatosis				1 [3.0]
Vacuolization Cytoplasmic			1 [2.0]	
Acinus, Atrophy, Focal	24 [1.8]	37 [1.9]	33 [1.9]	30 [2.1]
Acinus, Atrophy, Diffuse				1 [3.0]
Acinus, Cytoplasmic Alteration	1 [2.0]			
Acinus, Hyperplasia, Focal		1 [2.0]		1 [2.0]
Duct, Cyst	24	21	24	16
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy, Focal	1 [1.0]			1 [1.0]
Vacuolization Cytoplasmic				1 [3.0]
Stomach, Forestomach	(50)	(49)	(50)	(50)
Inflammation			2 [2.5]	
Ulcer	1 [2.0]	1 [1.0]	4 [2.3]	3 [2.7]
Epithelium, Cyst				1
Epithelium, Hyperkeratosis				1 [1.0]
Epithelium, Hyperplasia	4 [2.5]	2 [1.5]	8 [2.4]	7 [2.1]
Stomach, Glandular	(50)	(50)	(50)	(50)
Cyst				1
Erosion	5 [2.0]	4 [1.8]	5 [2.0]	6 [1.7]
Fibrosis			1 [2.0]	1 [2.0]
Inflammation				1 [2.0]
Inflammation, Focal	1 [1.0]			
Ulcer	2 [1.5]	2 [1.5]	3 [2.0]	3 [2.7]
Epithelium, Hyperplasia				1 [1.0]

a - Number of animals examined microscopically at site and number of animals with lesion

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

Test Type: CHRONIC

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

Time Report Requested: 12:50:37

Route: DOSED WATER

CAS Number: 3252-43-5

First Dose M/F: 09/05/01 / 09/05/01

Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Glands, Ectasia	4 [1.0]	3 [1.0]	3 [1.0]	10 [1.9]
Glands, Hyperplasia			2 [1.0]	2 [2.0]
Tongue	(0)	(0)	(3)	(5)
Epithelium, Hyperplasia			1 [2.0]	2 [1.0]
Tooth	(1)	(0)	(0)	(0)
Malformation	1			
CARDIOVASCULAR SYSTEM				
Blood Vessel	(2)	(0)	(3)	(0)
Aneurysm	1 [4.0]			
Hemorrhage	1 [4.0]			
Inflammation, Chronic			1 [4.0]	
Thrombosis			1 [4.0]	
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	39 [2.1]	44 [1.7]	38 [1.7]	45 [2.2]
Thrombosis	2 [3.5]		3 [3.3]	1 [3.0]
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	3 [1.3]	3 [1.0]	3 [1.0]	2 [1.0]
Angiectasis		1 [2.0]		3 [2.7]
Cytoplasmic Alteration, Focal	3 [1.0]		2 [2.0]	3 [2.0]
Hematopoietic Cell Proliferation	1 [2.0]			
Hyperplasia, Focal	5 [2.0]	7 [1.9]	1 [2.0]	8 [1.9]
Infiltration Cellular, Mixed Cell		1 [2.0]		1 [1.0]
Necrosis		1 [3.0]		
Vacuolization Cytoplasmic	6 [1.8]	3 [1.0]	5 [2.0]	11 [1.8]
Capsule, Inflammation, Focal	1 [1.0]			
Adrenal Medulla	(50)	(50)	(49)	(49)
Hyperplasia	1 [3.0]		1 [4.0]	
Hyperplasia, Focal	4 [1.5]	9 [1.4]	5 [1.2]	4 [1.3]
Necrosis		1 [3.0]		
Islets, Pancreatic	(49)	(50)	(50)	(50)
Hyperplasia	3 [2.0]		2 [2.0]	5 [2.0]
Parathyroid Gland	(46)	(44)	(43)	(47)
Hyperplasia			2 [2.0]	2 [2.0]
Pituitary Gland	(50)	(50)	(48)	(49)

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

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CAS Number: 3252-43-5

First Dose M/F: 09/05/01 / 09/05/01

Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Angiectasis	7 [2.3]	8 [2.1]	3 [2.3]	6 [2.8]
Cyst	2	3	4	2
Hemorrhage	5 [2.4]		2 [3.0]	2 [3.5]
Pars Distalis, Cyst		2	3	
Pars Distalis, Cytoplasmic Alteration, Focal	4 [1.3]	2 [1.5]	3 [1.3]	2 [1.5]
Pars Distalis, Degeneration, Cystic, Focal	1 [2.0]			
Pars Distalis, Hyperplasia			1 [3.0]	1 [4.0]
Pars Distalis, Hyperplasia, Focal	6 [2.3]	8 [1.9]	2 [2.0]	5 [2.2]
Rathke's Cleft, Cyst		1		
Thyroid Gland	(49)	(47)	(49)	(46)
Cyst		1		
C-cell, Hyperplasia	38 [1.8]	38 [1.5]	45 [1.7]	44 [2.0]
Follicle, Degeneration, Cystic, Focal	1 [2.0]	1 [1.0]	1 [1.0]	
Follicle, Pigmentation, Focal				1 [2.0]
Follicular Cell, Hyperplasia, Focal	5 [1.8]	6 [1.5]		4 [1.3]
GENERAL BODY SYSTEM				
Peritoneum	(2)	(6)	(0)	(2)
Inflammation				1 [2.0]
Mesothelium, Tunica Vaginalis, Hyperplasia	2 [2.0]			
Tissue NOS	(1)	(0)	(2)	(1)
Abdominal, Fibrosis			1 [3.0]	1 [3.0]
Thoracic, Hemorrhage	1 [4.0]			
GENITAL SYSTEM				
Coagulating Gland	(1)	(0)	(1)	(0)
Inflammation	1 [2.0]			
Epididymis	(50)	(50)	(50)	(50)
Atrophy		1 [3.0]		
Fibrosis		1 [1.0]		
Granuloma Sperm				1 [3.0]
Inflammation	2 [2.5]		1 [2.0]	
Epithelium, Vacuolization Cytoplasmic	1 [2.0]			1 [3.0]
Preputial Gland	(48)	(50)	(50)	(50)
Cyst			1	

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Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Degeneration, Cystic	1 [3.0]		2 [3.5]	1 [3.0]
Hyperplasia, Cystic	1 [3.0]	3 [2.0]	1 [3.0]	1 [3.0]
Inflammation	27 [1.7]	27 [1.5]	24 [1.8]	22 [2.0]
Prostate	(49)	(50)	(50)	(50)
Inflammation	36 [2.1]	29 [2.5]	34 [2.5]	33 [2.4]
Epithelium, Hyperplasia	7 [1.6]	15 [1.5]	5 [1.8]	10 [1.7]
Seminal Vesicle	(50)	(49)	(50)	(50)
Atrophy, Focal		1 [2.0]		
Epithelium, Hyperplasia			1 [2.0]	
Testes	(50)	(50)	(50)	(50)
Atrophy	14 [3.1]	10 [3.2]	4 [3.0]	6 [3.2]
Cyst		1		
Hemorrhage			1 [2.0]	1 [3.0]
Inflammation, Granulomatous				1 [3.0]
Interstitial Cell, Hyperplasia, Focal	3 [1.7]	4 [1.5]	7 [1.7]	2 [2.0]
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(50)	(50)	(50)
Hyperplasia	2 [3.0]	5 [3.0]	4 [3.0]	6 [2.8]
Hyperplasia, Histiocytic, Focal		1 [2.0]		1 [2.0]
Lymph Node	(26)	(24)	(19)	(21)
Ectasia				1 [4.0]
Fibrosis				1 [3.0]
Bronchial, Hyperplasia, Lymphoid				1 [3.0]
Deep Cervical, Hemorrhage	1 [3.0]	1 [3.0]		
Mediastinal, Ectasia	1 [3.0]	1 [3.0]	3 [3.3]	1 [3.0]
Mediastinal, Hemorrhage	4 [3.0]	2 [3.0]	1 [3.0]	4 [2.8]
Mediastinal, Hyperplasia, Lymphoid		2 [3.0]	4 [3.0]	1 [3.0]
Mediastinal, Pigmentation		1 [3.0]		
Pancreatic, Ectasia		2 [3.0]	1 [3.0]	2 [2.5]
Pancreatic, Hemorrhage	1 [3.0]	3 [3.0]	1 [4.0]	4 [3.3]
Pancreatic, Hyperplasia, Lymphoid	1 [3.0]	1 [3.0]		
Pancreatic, Pigmentation			1 [3.0]	
Lymph Node, Mandibular	(1)	(0)	(3)	(0)
Ectasia	1 [4.0]			
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Atrophy				1 [3.0]
Ectasia	2 [3.5]	2 [3.0]	2 [3.5]	4 [3.5]

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Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Fibrosis	1 [3.0]			
Hemorrhage		1 [2.0]	1 [4.0]	2 [2.5]
Hyperplasia, Histiocytic			1 [3.0]	1 [4.0]
Hyperplasia, Lymphoid	2 [3.0]	4 [3.0]	2 [3.0]	3 [3.0]
Spleen	(49)	(50)	(50)	(50)
Accessory Spleen		1	2 [3.0]	
Congestion	1 [3.0]		2 [2.5]	
Fibrosis, Focal	3 [2.7]		3 [2.3]	1 [3.0]
Hematopoietic Cell Proliferation	2 [3.0]	4 [3.0]	2 [3.0]	3 [2.7]
Hemorrhage			1 [3.0]	1 [4.0]
Hyperplasia, Histiocytic, Focal		1 [4.0]	1 [4.0]	1 [4.0]
Hyperplasia, Lymphoid		1 [2.0]		
Infiltration Cellular, Mixed Cell			1 [3.0]	
Necrosis, Focal	1 [4.0]		2 [4.0]	
Pigmentation			1 [3.0]	
Lymphoid Follicle, Atrophy			1 [3.0]	1 [3.0]
Red Pulp, Depletion Cellular	1 [3.0]			
Thymus	(43)	(50)	(44)	(45)
Atrophy	1 [3.0]			
Ectopic Parathyroid Gland		1 [3.0]		
Hemorrhage	1 [2.0]			
Hyperplasia, Lymphoid				1 [3.0]
INTEGUMENTARY SYSTEM				
Mammary Gland	(46)	(49)	(47)	(46)
Dilatation	13 [2.5]	9 [2.7]	14 [2.4]	9 [2.3]
Fibrosis	1 [2.0]			
Inflammation, Granulomatous, Focal	1 [3.0]			
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	2	2		1
Hyperkeratosis, Focal		2 [3.0]		2 [3.0]
Inflammation, Focal		1 [3.0]	1 [3.0]	
Ulcer				1 [3.0]
Epidermis, Hyperplasia, Focal		1 [3.0]	2 [3.0]	1 [3.0]
Subcutaneous Tissue, Edema				1 [3.0]
MUSCULOSKELETAL SYSTEM				

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

Time Report Requested: 12:50:37**Route:** DOSED WATER**CAS Number:** 3252-43-5**First Dose M/F:** 09/05/01 / 09/05/01**Species/Strain:** RATS/F 344**Pathologist:** FARNELL, D. - HEATH, J. - JOKINEN, M.**Lab:** SRI

FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Bone	(50)	(50)	(50)	(50)
Fibrous Osteodystrophy				1 [2.0]
Hyperostosis		1 [1.0]		
Femur, Hyperostosis			1 [2.0]	
Skeletal Muscle	(1)	(3)	(1)	(1)
Fibrosis			1 [2.0]	
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression, Focal	5 [3.0]	8 [3.0]	12 [2.9]	9 [3.0]
Hemorrhage			1 [4.0]	
Hemorrhage, Focal	4 [3.3]	2 [3.0]	3 [2.0]	2 [3.0]
Peripheral Nerve	(2)	(0)	(4)	(0)
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	1 [3.0]	1 [3.0]	2 [2.0]	1 [2.0]
Hemorrhage			1 [2.0]	1 [3.0]
Infiltration Cellular, Mixed Cell		2 [3.0]		
Inflammation	2 [1.0]	2 [1.0]		2 [1.0]
Metaplasia, Osseous, Focal	1 [1.0]			
Metaplasia, Squamous, Focal			1 [2.0]	
Alveolar Epithelium, Hyperplasia	12 [1.9]	10 [1.7]	8 [1.8]	6 [2.0]
Serosa, Fibrosis				1 [2.0]
Nose	(50)	(50)	(50)	(50)
Foreign Body			1 [1.0]	
Inflammation			1 [1.0]	2 [2.0]
Nasolacrimal Duct, Inflammation	2 [1.5]			
Trachea	(50)	(50)	(50)	(50)
Inflammation				1 [3.0]
SPECIAL SENSES SYSTEM				
Eye	(48)	(47)	(48)	(47)
Atrophy	1 [3.0]		1 [3.0]	
Cataract			1 [3.0]	

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FISCHER 344 RATS MALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Edema			1 [3.0]	
Retina, Degeneration			1 [3.0]	
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid, Focal	1 [1.0]			
Inflammation		1 [2.0]		
Epithelium, Hyperplasia, Focal	3 [1.3]	3 [1.3]	1 [1.0]	6 [1.8]
Zymbal's Gland	(0)	(0)	(2)	(0)
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Infarct	2 [3.5]	1 [2.0]	2 [2.0]	
Mineralization			1 [1.0]	
Nephropathy	48 [1.8]	47 [1.7]	45 [1.6]	45 [1.5]
Renal Tubule, Accumulation, Hyaline	1 [2.0]	7 [2.3]	1 [1.0]	1 [3.0]
Droplet				
Renal Tubule, Cyst	2			1
Renal Tubule, Pigmentation	2 [3.0]	2 [3.0]		2 [3.0]
Urethra	(0)	(1)	(1)	(0)
Urinary Bladder	(50)	(50)	(49)	(50)
Hemorrhage	1 [3.0]		1 [3.0]	

*** END OF MALE ***

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FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Disposition Summary				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	9	11	16	12
Natural Death	12	4	5	7
Survivors				
Terminal Sacrifice	29	35	29	31
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(49)	(50)	(50)	(50)
Ulcer				1 [1.0]
Epithelium, Hyperkeratosis	10 [1.7]	8 [1.9]	28 [2.0]	48 [2.0]
Intestine Large, Cecum	(46)	(50)	(47)	(50)
Intestine Large, Colon	(48)	(50)	(49)	(50)
Intestine Large, Rectum	(49)	(49)	(48)	(49)
Intestine Small, Duodenum	(49)	(50)	(50)	(49)
Intestine Small, Ileum	(45)	(48)	(49)	(49)
Intestine Small, Jejunum	(42)	(48)	(48)	(46)
Liver	(50)	(50)	(50)	(50)
Angiectasis, Focal	2 [1.5]	1 [2.0]	1 [1.0]	3 [2.0]
Congestion	3 [2.0]	5 [2.0]	4 [2.8]	6 [2.3]
Degeneration, Cystic, Focal	1 [2.0]		1 [2.0]	
Hematopoietic Cell Proliferation			3 [1.0]	1 [1.0]
Hepatodiaphragmatic Nodule	7	5	6	3
Infiltration Cellular, Lymphocyte			1 [2.0]	
Inflammation, Chronic	35 [1.6]	41 [1.6]	30 [1.4]	34 [1.4]
Thrombosis	1 [2.0]			
Bile Duct, Hyperplasia	29 [1.7]	29 [1.6]	32 [1.6]	29 [1.6]
Hepatocyte, Basophilic Focus	39	47	41	41
Hepatocyte, Clear Cell Focus	11	15	14	14
Hepatocyte, Cytologic Alterations, Focal	6 [2.8]	10 [2.1]	16 [2.5]	16 [2.4]
Hepatocyte, Eosinophilic Focus	2	3	6	1
Hepatocyte, Mixed Cell Focus	14	25	15	25
Hepatocyte, Necrosis	2 [2.5]	1 [1.0]	6 [1.5]	3 [1.0]
Hepatocyte, Syncytial Alteration, Focal	1 [1.0]			

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Test Type: CHRONIC

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

Time Report Requested: 12:50:37

Route: DOSED WATER

CAS Number: 3252-43-5

First Dose M/F: 09/05/01 / 09/05/01

Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Hepatocyte, Vacuolization Cytoplasmic	22 [2.1]	27 [1.5]	29 [2.0]	23 [1.7]
Mesentery	(20)	(11)	(17)	(15)
Accessory Spleen		1		1
Fat, Necrosis, Focal	14 [2.9]	8 [2.9]	10 [2.9]	11 [2.7]
Oral Mucosa	(0)	(0)	(1)	(1)
Hyperplasia				1 [3.0]
Pancreas	(50)	(50)	(50)	(50)
Acinus, Atrophy, Focal	12 [1.9]	20 [1.5]	19 [1.8]	17 [1.9]
Acinus, Atrophy, Diffuse		1 [3.0]		
Acinus, Cytoplasmic Alteration				1 [2.0]
Acinus, Hyperplasia	1 [3.0]			
Acinus, Hyperplasia, Focal	1 [2.0]			
Duct, Cyst	8	13	7	4
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy, Focal	1 [1.0]			
Stomach, Forestomach	(50)	(50)	(50)	(50)
Erosion			1 [2.0]	1 [1.0]
Inflammation		1 [2.0]	1 [3.0]	
Ulcer	5 [1.6]		1 [3.0]	2 [2.0]
Epithelium, Hyperplasia	4 [2.3]	4 [1.5]	8 [1.9]	4 [2.5]
Stomach, Glandular	(49)	(50)	(50)	(50)
Erosion	4 [1.5]		4 [2.5]	1 [2.0]
Inflammation, Focal				1 [2.0]
Mineralization		1 [3.0]		
Ulcer			2 [2.0]	1 [2.0]
Epithelium, Hyperplasia	1 [2.0]			
Glands, Ectasia	10 [1.0]	4 [1.0]	10 [1.0]	26 [1.1]
Glands, Hyperplasia				2 [1.5]
Neuroendocrine Cell, Hyperplasia				1 [1.0]
Tongue	(2)	(1)	(5)	(7)
Epithelium, Hyperplasia	1 [1.0]	1 [1.0]	2 [1.5]	6 [1.2]
Tooth	(1)	(0)	(0)	(0)
Peridontal Tissue, Inflammation	1 [3.0]			
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	34 [1.7]	36 [1.6]	36 [1.4]	35 [1.6]
Thrombosis	3 [2.3]		2 [3.0]	1 [2.0]

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Test Type: CHRONIC

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

Time Report Requested: 12:50:37

Route: DOSED WATER

CAS Number: 3252-43-5

First Dose M/F: 09/05/01 / 09/05/01

Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Endocardium, Hyperplasia		1 [2.0]		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	6 [1.3]	1 [1.0]	1 [2.0]	2 [1.0]
Angiectasis	5 [2.6]	1 [3.0]	3 [2.3]	1 [3.0]
Cytoplasmic Alteration, Focal	2 [2.0]		4 [2.0]	1 [2.0]
Hyperplasia	1 [4.0]			
Hyperplasia, Focal	2 [1.5]	9 [2.0]	10 [1.9]	8 [2.0]
Infiltration Cellular, Mixed Cell			1 [1.0]	2 [1.5]
Necrosis				1 [3.0]
Pigmentation	1 [3.0]			
Vacuolization Cytoplasmic	9 [1.9]	8 [1.8]	9 [1.8]	6 [1.5]
Adrenal Medulla	(49)	(50)	(50)	(50)
Angiectasis			1 [2.0]	
Hyperplasia, Focal	2 [1.5]	2 [1.5]	1 [2.0]	5 [1.2]
Infiltration Cellular, Mixed Cell				1 [2.0]
Vacuolization Cytoplasmic, Focal			1 [2.0]	
Islets, Pancreatic	(50)	(50)	(50)	(49)
Hyperplasia		1 [2.0]	1 [2.0]	
Parathyroid Gland	(42)	(42)	(43)	(43)
Atrophy	1 [2.0]			
Hyperplasia	1 [2.0]			
Pituitary Gland	(49)	(48)	(50)	(50)
Angiectasis	6 [2.8]	3 [3.0]	5 [3.0]	7 [3.0]
Cyst	5	3	2	4
Fibrosis, Focal				1 [3.0]
Hemorrhage	6 [2.5]	4 [3.3]		2 [2.0]
Hyperplasia, Histiocytic, Focal	1 [4.0]			
Pars Distalis, Cyst	4	6	5	12
Pars Distalis, Cytoplasmic Alteration, Focal	1 [1.0]	2 [2.0]		2 [1.5]
Pars Distalis, Hyperplasia				2 [3.0]
Pars Distalis, Hyperplasia, Focal	8 [2.3]	7 [2.4]	9 [2.4]	10 [2.2]
Pars Intermedia, Hyperplasia, Focal	1 [2.0]			
Pars Intermedia, Vacuolization			1 [2.0]	
Cytoplasmic, Focal				
Rathke's Cleft, Cyst	1		1	1

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Test Type: CHRONIC

WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

Time Report Requested: 12:50:37

Route: DOSED WATER

CAS Number: 3252-43-5

First Dose M/F: 09/05/01 / 09/05/01

Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Thyroid Gland	(46)	(48)	(48)	(46)
C-cell, Hyperplasia	38 [1.8]	44 [1.8]	45 [1.8]	42 [2.0]
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Clitoral Gland	(50)	(50)	(47)	(50)
Cyst				1
Degeneration, Cystic	2 [2.0]	2 [2.5]	4 [2.5]	6 [3.2]
Hyperplasia		1 [2.0]		
Hyperplasia, Cystic	4 [2.8]	3 [2.0]	8 [2.0]	4 [2.3]
Inflammation	7 [2.6]	2 [2.5]	1 [3.0]	3 [2.7]
Metaplasia, Squamous			1 [3.0]	
Ovary	(50)	(50)	(50)	(50)
Angiectasis	1 [2.0]			
Cyst	3	4	3	6
Oviduct	(1)	(0)	(1)	(0)
Uterus	(50)	(50)	(50)	(50)
Decidual Reaction		1 [3.0]		
Hemorrhage	1 [4.0]	2 [3.0]		1 [3.0]
Cervix, Hypertrophy	1 [3.0]			
Endometrium, Hyperplasia, Cystic	32 [2.1]	38 [1.8]	39 [1.7]	32 [1.7]
Vagina	(6)	(2)	(7)	(7)
Inflammation		1 [2.0]	1 [2.0]	2 [3.0]
Inflammation, Suppurative	1 [2.0]			
Epithelium, Cyst			1	1
HEMATOPOIETIC SYSTEM				
Bone Marrow	(49)	(50)	(50)	(50)
Hyperplasia	3 [3.0]	1 [2.0]	5 [3.0]	2 [3.0]
Hyperplasia, Histiocytic, Focal	1 [3.0]	1 [3.0]		1 [2.0]
Hyperplasia, Reticulum Cell, Diffuse		1 [3.0]		
Inflammation, Granulomatous		1 [2.0]		
Lymph Node	(21)	(15)	(23)	(15)

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

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Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Congestion			1 [3.0]	
Deep Cervical, Hemorrhage	1 [3.0]		1 [3.0]	
Mediastinal, Ectasia	1 [3.0]		4 [3.0]	
Mediastinal, Hemorrhage	7 [2.9]	6 [2.7]	6 [3.0]	3 [3.0]
Mediastinal, Hyperplasia, Histiocytic			1 [3.0]	
Mediastinal, Hyperplasia, Lymphoid	1 [3.0]	2 [3.0]	4 [2.8]	2 [2.5]
Mediastinal, Inflammation, Granulomatous	1 [1.0]			
Mediastinal, Pigmentation		1 [3.0]		1 [3.0]
Pancreatic, Amyloid Deposition			1 [3.0]	
Pancreatic, Ectasia	1 [3.0]			
Pancreatic, Hemorrhage	3 [3.0]	2 [3.0]	2 [3.0]	2 [3.0]
Pancreatic, Inflammation, Granulomatous	1 [2.0]			
Lymph Node, Mandibular	(3)	(2)	(2)	(2)
Ectasia	1 [3.0]			
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Ectasia	1 [3.0]		2 [3.0]	1 [3.0]
Hemorrhage			1 [2.0]	
Hyperplasia, Lymphoid	2 [3.0]	1 [2.0]		2 [3.0]
Inflammation, Granulomatous	1 [2.0]	1 [2.0]		
Pigmentation	1 [2.0]			
Spleen	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	4 [2.8]	2 [2.5]	4 [3.3]	5 [2.6]
Hyperplasia, Histiocytic, Focal	2 [3.0]			
Inflammation, Granulomatous	1 [3.0]	1 [3.0]		
Pigmentation	6 [3.0]			1 [3.0]
Lymphoid Follicle, Atrophy				1 [3.0]
Thymus	(48)	(49)	(48)	(49)
Hemorrhage				1 [3.0]
Hyperplasia, Lymphoid	2 [3.0]	1 [3.0]		
INTEGUMENTARY SYSTEM				
Mammary Gland	(49)	(50)	(50)	(50)
Dilatation	38 [2.9]	41 [2.7]	33 [2.8]	32 [2.9]
Fibrosis		1 [3.0]	2 [3.0]	1 [3.0]
Galactocele	2			1
Skin	(50)	(50)	(50)	(49)
Cyst Epithelial Inclusion			1	

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Species/Strain: RATS/F 344

Pathologist: FARNELL, D. - HEATH, J. - JOKINEN, M.

Lab: SRI

FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Ulcer	1 [3.0]	1 [2.0]		1 [2.0]
Subcutaneous Tissue, Fibrosis, Focal	1 [2.0]			
Subcutaneous Tissue, Necrosis, Fatty			1 [3.0]	
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50)	(50)	(50)
Hyperostosis				1 [2.0]
Cranium, Hyperostosis			1 [2.0]	
Skeletal Muscle	(3)	(0)	(0)	(0)
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Compression, Focal	12 [2.7]	12 [2.8]	19 [2.8]	6 [2.5]
Hemorrhage, Focal	2 [2.5]	1 [1.0]	1 [1.0]	2 [2.0]
Spinal Cord	(5)	(3)	(2)	(4)
Atrophy, Focal	1 [3.0]			
Hemorrhage, Focal				1 [3.0]
RESPIRATORY SYSTEM				
Lung	(50)	(50)	(50)	(50)
Congestion	3 [2.0]	1 [3.0]	1 [2.0]	2 [2.0]
Hemorrhage	1 [1.0]		1 [2.0]	2 [2.5]
Hyperplasia, Histiocytic, Focal		1 [2.0]		
Inflammation	3 [1.7]	1 [2.0]	3 [1.3]	7 [1.4]
Metaplasia, Squamous, Focal	1 [2.0]			
Alveolar Epithelium, Hyperplasia	10 [1.9]	5 [1.2]	2 [2.0]	5 [2.0]
Interstitial, Edema	1 [2.0]			
Nose	(50)	(50)	(50)	(50)
Nasolacrimal Duct, Inflammation		1 [2.0]		1 [2.0]
Trachea	(50)	(50)	(50)	(50)
SPECIAL SENSES SYSTEM				
Eye	(47)	(50)	(50)	(48)
Atrophy		2 [3.0]	1 [3.0]	3 [3.0]

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WATER DISINFECTION BYPRODUCTS (DIBROMOACETONITRILE)

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FISCHER 344 RATS FEMALE	0 MG/L	50 MG/L	100 MG/L	200 MG/L
Cataract	3 [2.7]	2 [3.0]		
Exudate	1 [3.0]			
Retina, Degeneration	2 [3.0]	2 [3.0]		
Harderian Gland	(50)	(50)	(50)	(50)
Degeneration, Cystic, Focal				1 [2.0]
Hyperplasia, Lymphoid, Focal	1 [2.0]			
Inflammation			1 [1.0]	
Epithelium, Hyperplasia, Focal	4 [1.3]		1 [1.0]	1 [2.0]
Zymbal's Gland	(0)	(0)	(1)	(0)
URINARY SYSTEM				
Kidney	(50)	(49)	(50)	(49)
Congestion				1 [3.0]
Infarct	1 [1.0]	1 [2.0]		4 [3.3]
Infiltration Cellular, Lymphocyte			1 [2.0]	
Mineralization		1 [3.0]		
Nephropathy	33 [1.1]	36 [1.2]	44 [1.3]	43 [1.3]
Pelvis, Inflammation, Chronic	1 [2.0]			7 [2.0]
Renal Tubule, Accumulation, Hyaline	11 [2.4]	18 [2.0]	17 [2.2]	14 [1.9]
Droplet				
Renal Tubule, Cyst	1	1		1
Renal Tubule, Hyperplasia, Focal			1 [1.0]	
Renal Tubule, Pigmentation	1 [3.0]			
Urinary Bladder	(50)	(50)	(49)	(50)

*** END OF REPORT ***